

Translation of Published Unexamined Japanese  
Utility Model Application No.2-113477

1. Filing No.	: 1-22634
2. Filing Date	: February 28, 1989
3. Applicant	: CASIO COMPUTER CO., LTD.
4. PUJUMA No.	: 2-113477
5. PUJUMA Date	: September 11, 1991
6. Priority	: Not Claimed
7. Request for Examination:	Not Filed
8. Int. Cl. <sup>2</sup>	: H 04 N 5/66 G 02 F 1/133 G 09 G 3/36

\* PUJUMA: Published Unexamined Japanese Utility Model  
Application

---

[What is claimed is]

1. A liquid crystal panel driving apparatus for displaying an image by employing a liquid crystal panel of accumulative response, said liquid crystal panel driving apparatus comprising:

an image memory for storing digital image data of one frame,

a comparison circuit for comparing the level of said image data of one frame with the level of image data of

another frame following said one frame output from said image memory, so as to output a graduation change signal, said comparison circuit comprises means for outputting said image data of one frame when said digital image data of one frame and image data of another frame ahead of said one frame are the same, for outputting image data of maximum level when said image data of one frame is higher in level than image data of another frame ahead of said one frame, and for outputting image data of minimum level when said image data of one frame is lower in level than image data of another frame ahead of said one frame,

said liquid crystal panel driving apparatus driving said liquid crystal panel on the basis of image data output from said image data output means.

#### [Brief Description of the Drawings]

Figs. 1 to 3 show an embodiment of the present invention, Fig. 1 is a block diagram of a circuit arrangement, Fig. 2 is a set of diagrams of resultant waveforms of voltages by which a liquid crystal panel is driven and a light transmission ratio of the liquid crystal panel when graduation is changed from "0" to "4," Fig. 3 is diagrams of resultant waveforms of voltage by which to drive a liquid crystal panel and a light transmission ratio of the liquid crystal panel when graduation is changed from "7" to "4", Fig. 4 is a block diagram of a

conventional liquid crystal television, Fig. 5 is a set of diagrams of relationships explaining the operation shown in Fig. 4, between resultant waveforms of voltage by which a liquid crystal panel is driven and a light transmission ratio of the liquid crystal panel.

2... .. a tuner, 3... .. a television linear circuit, 4... .. an A/D converter circuit, 5... .. a synchronous control circuit, 6... .. a segment driving circuit, 7... .. a common electrode driving circuit, 8... .. a liquid crystal panel, 11... .. an image memory, 12... .. a comparison circuit.